

Table 2.4 Manufacturing Inputs for Heat, Power, and Electricity Generation by End Use, 1998

End-Use Category	Net Electricity ¹	Residual Fuel Oil	Distillate Fuel Oil	Liquefied Petroleum Gases and Natural Gas Liquids	Natural Gas	Coal (Excluding Coal Coke and Breeze)	Total ²
	Million Kilowatthours	Million Barrels			Billion Cubic Feet	Million Short Tons	
Indirect End Use (Boiler Fuel)	5,568	39	6	7	2,471	35	
Direct End Use							
All Process Uses	705,697	16	6	22	3,272	15	
Process Heating	103,299	15	3	19	3,104	15	
Process Cooling and Refrigeration	54,473	(s)	(s)	1	21	(s)	
Machine Drive	457,344	1	2	2	96	(s)	
Electrochemical Processes	87,200	—	—	—	—	—	
Other Process Uses	3,380	(s)	1	(s)	51	(s)	
All Non-Process Uses	R 157,736	1	9	8	656	1	
Facility Heating, Ventilation, and Air Conditioning ³	R 79,355	1	1	1	393	(s)	
Facility Lighting	61,966	—	—	—	—	—	
Other Facility Support	R 14,338	(s)	1	(s)	39	(s)	
Onsite Transportation	1,380	—	6	7	5	—	
Conventional Electricity Generation	—	(s)	1	(s)	204	1	
Other Non-Process Use	696	(s)	(s)	(s)	Q	0	
End Use Not Reported	R 20,473	(s)	1	1	70	(s)	
Total	R 889,474	57	23	38	6,469	51	
Trillion Btu							
Indirect End Use (Boiler Fuel)	19	246	38	24	2,538	770	3,635
Direct End Use							
All Process Uses	2,408	103	37	78	3,361	338	6,325
Process Heating	352	97	20	68	3,187	331	4,055
Process Cooling and Refrigeration	186	(s)	(s)	2	22	(s)	210
Machine Drive	1,560	5	13	7	99	7	1,691
Electrochemical Processes	298	—	—	—	—	—	298
Other Process Uses	12	1	3	1	52	(s)	69
All Non-Process Uses	538	8	52	29	673	30	1,330
Facility Heating, Ventilation, and Air Conditioning ³	271	4	6	4	403	4	692
Facility Lighting	211	—	—	—	—	—	211
Other Facility Support	49	1	6	(s)	40	(s)	96
Onsite Transportation	5	—	35	24	5	—	69
Conventional Electricity Generation	—	3	3	(s)	210	27	243
Other Non-Process Use	2	(s)	1	(s)	Q	0	3
End Use Not Reported	70	1	7	4	72	3	157
Total	3,035	357	133	135	6,644	1,143	11,447

¹ "Net Electricity" is obtained by summing purchases, transfers in, and generation from noncombustible renewable resources, minus quantities sold and transferred out.

² Total of listed energy sources. Excludes inputs of unallocated energy sources (6,248 trillion Btu). The top half of the "Total" column is blank because different physical units cannot be added.

³ Excludes steam and hot water.

— = Not applicable. (s)=Estimate less than 0.5. Q=Withheld because relative standard error is greater than 50 percent.

Notes: • Totals may not equal sum of components due to independent rounding. • The estimates presented in this table are for the total consumption of energy for the production of heat, power, and

electricity generation, regardless of where the energy was produced. Specifically, the estimates include the quantities of energy that were originally produced offsite and purchased by or transferred to the establishment, plus those that were produced onsite from other energy or input materials not classified as energy, or were extracted from captive (onsite) mines or wells. • Allocations to end uses are made on the basis of reasonable approximations by respondents.

Web Page: <http://www.eia.doe.gov/emeu/mecs>.

Source: Energy Information Administration, Form EIA-846, "1998 Manufacturing Energy Consumption Survey."